

Amendments to the Claims

Please replace the existing listing of claims with the following:

Claims 1-7 (cancelled)

Claim 8 (currently amended) : A wireless linear motor comprising:

a stationary stator having permanent magnets;

a movable stage having coils and a controller with a transceiver for wirelessly communicating with an external data processing system, the controller adapted to energize the coils to position the stage over the stator in response to control signals from the external system; and,

a frame having first and second magnetically permeable linear guides for slideably mounting the stage over the stator to form a magnetic circuit linking the frame and stage, wherein each linear guide has a stage portion attached to the stage and wound with a stage coil, a frame portion attached to the frame and wound with a frame coil, a plurality of ball bearings disposed between and magnetically coupling the stage and frame portions, electric conductors coupling the frame coil to an external power supply for generating a magnetic flux in the frame portion, and additional electric conductors coupling the stage coil to the controller for providing electrical power induced in the stage coil by the magnetic flux.

Claim 9 (original): The wireless linear motor of claim 8 wherein the stator is incorporated in the frame.

Claim 10 (original): The wireless linear motor of claim 8 wherein a linear recess is defined in the stage portion for receiving the frame portion.

Claim 10 (original): The wireless linear motor of claim 8 and further comprising position sensors coupled to the controller for providing position signals for the stage to the external system for generating the control signals.

Claim 12 (original): The wireless linear motor of claim 8 and further comprising magnetic sensors mounted on the stage and coupled to the controller for providing magnetic pole signals indicative of the location of the stage relative to the permanent magnets of the stator.

Claim 13 (original): The wireless linear motor of claim 12 wherein the magnetic sensors are Hall Effect sensors.

Claim 14 (original): The wireless linear motor of claim 8 and further comprising a battery mounted on the stage and coupled to the controller for delivering supplemental power to the controller.

Claims 15-24 (cancelled)

Claim 25 (currently amended): A power supply circuit for a linear motor, the motor having a stationary stator including permanent magnets, a movable stage including coils and a controller for communicating with an external data processing system and adapted to energize the coils to position the movable stage over the stationary stator in response to control signals from the external system, the circuit comprising:

first and second magnetically permeable linear guides mounted on a frame and for slideably mounting the stage over the stator to form a magnetic circuit linking the frame and stage, wherein each linear guide has a stage portion attached to the stage and wound with a stage coil, a frame portion attached to the frame and wound with a frame coil, a plurality of ball bearings disposed between and magnetically coupling the stage and frame portions, electric conductors coupling the frame coil to an external power supply for generating a magnetic flux in the frame portion, and additional electric conductors coupling the stage coil to the controller for providing electrical power induced in the stage coil by the magnetic flux.

Claim 26 (original): The power supply circuit of claim 25 and further comprising a battery mounted on the stage and coupled to the controller for delivering supplemental power to the controller.

Claim 27-29 (cancelled)